

CHAPTER I

INTRODUCTION

1.1 Background of the Study

The structure of connected discourse is considered a topic of primary importance in current linguistic theory and is closely linked with another important area of linguistic research - semantic structure and its relation to syntax. However, despite more than a century of great progress in linguistics, the most abiding successes seemed at one time to be at the elemental level of linguistic structure - the description and relation of phonological units. The results from these studies too had little bearing on the development of linguistic organization at other levels, the morphological and syntactic. Even when syntactic studies gained momentum after the 50s, work was confined to relations within the sentence, which was generally considered the upper limit of linguistic investigation. But as Harris noted in *'Methods in Structural Linguistics'* (Chicago, 1951:11-12), the reasons for this were pragmatic rather than theoretical. Studies of the structure of parts of texts and whole texts only began appearing in the late fifties and early 60s (Loriot, Gudschinsky, Pickett, Loos, Powlison). Then between the late 60s and early 70s, there was an increased interest in discourse studies, and those using eclectic approaches too started appearing (Longacre, Ballard, Conrad, Grimes and Glock).

But it was only in 1973 that there was a more positive change in attitude towards discourse structure studies when Charles Ruhl stated in *'Language Sciences 25, Prerequisites for a Linguistic Description of Coherence'* that he would

consider the rhetorical notion of notion of coherence. He mentions the Prague School linguists and Halliday in his article. Although not dealing exclusively with the problems of discourse structure, Halliday's work has some important implications for discourse analysis, for his statement of cohesion was a starting point for several studies on cohesion.

Just as morphology and syntax were areas linguists were reluctant to enter once, semantics was also largely ignored until Michael Halliday and Ruqaiya Hasan began delving into this area, especially text analysis. Their '*Cohesion in English*' (1976) uses systemic functional grammar to ask questions about text structure, and complements the grammar by developing additional analysis, focusing on text rather than the clause. Yet 20 years after this and research by various systemic linguists, the most significant studies which have any bearing on this study are Halliday's and Martin's on **discourse semantics**.

Halliday's '*Introduction to Functional Grammar*'(1985a) outlines the grammar of English which realizes the discourse semantics developed in J.R.Martin's '*English Text*'(1992). As Matthiesen(1992) and Halliday(1985) both point out, in functional linguistics, semantics is **naturally** related to grammar. But while some linguists find Halliday's English grammar excessive, Martin points out that such an extravagant-looking grammar is often actually fundamental regarding parsimony from the discourse analysis perspective. Thus his '*English Text*' complements such a non-parsimonious grammar.

While Martin's '*English Text*' is an extension of '*Cohesion in English*', the latter however is organized as the opposition between grammar and cohesion

(structural and non-structural resources for meaning). '*English Text*' is organized **stratally** as an opposition between grammar and semantics (clause oriented and text oriented resources for meaning). And because a semantics of this kind focuses on text-size rather than clause-size meanings, Martin calls it discourse semantics.

As stated earlier, Halliday's work was the starting point for many a study on cohesion and therefore this study will use it as a theoretical model, together with Hasan's and Martin's modes of text analysis. Basically, Halliday's model is characterized broadly as:

Language as a resource

- i. Language is a network of relationships.
- ii. Description shows how these relationships are interrelated.
- iii. Explanation reveals the connections between these relations and the use to which language is put.

Here functional linguistics is the conceptualization of language as resource for meaning compared with Chomsky's conceptualization of language as a system of rules (**formal linguistics**). Briefly, functional grammar is user-friendly; it is concerned with choice - with what speakers might and tend to do while Chomsky's grammar is concerned with restrictions. As Halliday's linguistics deals with system - with relationships between linguistic units of various kinds - it is **systemic functional linguistics**, though he prefers the term **functional linguistics**. With the advent of this grammar, linguists began venturing more boldly into this field and the International Systemics Congress became an arena for papers on the latest developments in systemics and other functional theories, its purpose being to

establish a dialogue with the Prague School linguists, functional text linguistics, stylistics, and applied and educational linguistics.

Other than Halliday, Hasan and Martin, Hoey also contributed considerably to this field(cohesion). In his *'Another Perspective on Coherence and cohesive harmony'* in E. Ventola,1991, he tested Hasan's claims on coherence and cohesive harmony that just as the chain interact, so also the sentences through which they pass might interact. Using a passage on political philosophy and a newspaper item, he found that sentences connected by an above average number of **cohesive ties** for the text (no less than three) had related '**messages**'.

Gerald Parsons also investigated the cohesion-coherence of scientific texts written by post-graduate science students at a British University and found a sharp contrast between a standard of spoken English and poor written work. He too uses Hasan's concept of cohesive harmony and associated hypotheses. He found that native speakers wrote better organized texts than overseas students, the degree of organization being judged by the degree of coherence.

Further, systemic linguistics was used to describe student summaries (Helen Drury in Ventola, 1991), as well as lexical items in Chemistry texts (Sridevi Srinivass, 1996). In another study by Ventola - Mauranen(1991) on some Finnish writers' use of connectors and thematic patterns, a small part is devoted to text participants and reference. Reference to text participants or parts of texts create cohesive **reference chains** which help readers to keep track of referents in the texts. Ventola and Mauranen used analytical methods varying from Halliday - Hasan's (1976:31-87) and Martin's(1983) approaches to Kallgren's(1979), and

highlighted the differences between native and non-native writing skills. Other than Hasan - Halliday, Martin and Hoey, this is the closest study on the cohesion of **reference items** that I have come across so far. Martin especially has studied the educational context extensively, delving into texts of different genres in Science and Humanities used by Australian junior secondary school students.

In recent years, genre/register analysis has captured the attention of several researchers. Susan Hunston in *'Register Analysis'* (edited by Mohsen Ghadessy, 1993) explores evaluation in a type of scientific text - experimental research articles - with the aim of using the exploration to explicate the ideology behind such articles. Her study revealed that the evaluation of the research article sprang from an ideology incorporating the **personal** and the **impersonal** and that there is no sharp distinction between 'fact' and 'evaluation'.

In the same collection of papers, Britt-Louise Gunnarsson investigates articles - medicine, technology and economics - from three periods to determine genre variation and change on textual levels. The study revealed:

- i. clearer genre boundaries for the scientific texts
- ii. a pattern shift after 1945 towards the English pattern of writing
- iii. scientific texts showed a decrease in communicative illocutions, being more impersonal, and
- iv. a more homogeneous structuring of the scientific articles.

It must be stated here that the use of the term genre is still unresolved in systemic theory with two schools of thought - the '**register**' theorists (Halliday, Gregory,

Carrol, Hasan, etc.) and the ‘genre’ theorists. In this study, I shall use the term ‘genre’ to describe the text types being analyzed.

1.2 Purpose of the Study

As an international language, English is no longer considered the exclusive right of the English. With it coming increasingly into world-wide use, there has arisen a correspondingly increasing need for more information on the language and the ways in which it is used. Thus the genre studies of Martin, Ventola and others who have expanded the potential of systemic theory to evaluate text in the process of becoming have been very encouraging. A model of genre as an underlying semiotic, according to Martin, can be in two forms - one depicting the resulting and another the process of producing text, i.e., as both **static** and **dynamic**. But research on the dynamic representation of genre is only just beginning (Ventola’s flow chart schematization of discourse). Barbara Couture however has an interesting proposal for a schematic representation of the interpretive ‘moves’ a reader makes when proceeding through a text. The scheme treats the text as a conversation, analyzing textual forms pointing to underlying systems of meaning, presumably shared by intra- and extra-textual participants.

I, on the other hand, will use Halliday’s and Hasan’s analysis for cohesion to study reference items in some Agricultural articles of the factual genre of two types - one with a descriptive function (report) and one with an explanatory function (explanation), that is, texts which present only one position. These are

generalized across experience and come under texts which are not activity sequences. Not much work has been done on this genre except for Martin, 1985b/1989 following Longacre's chronological framework cross-classifying various genres, thus my interest in this genre.

At the same time, I will use Martin's reference chains to determine if they help readers to keep track of referents in the texts, to understand text participant roles in the texts, and to treat texts as coherent units. As such, the study will attempt to seek answers to the following questions:

1. Does a text-type of the factual genre favour a particular reference type?
2. Does the density of reference items remain constant for each genre type or vary?
3. To what extent do reference chains interrelate participants in the identification system to make whole messages in each text-type?

1.3 Theoretical Framework and Rationale

Language organization is at present governed by several competing theories but the most important of them are: the extended standard theory of **generative transformational grammar** (Chomsky et al); **generative semantics** (Lakoff, McCrawley); **applicational generative** (Saumjan et al in the USSR); **tagmemic** (Pike and Wycliffe Bible Translators); **systemic** or **scale-and-category** (Halliday); and **stratificational** (Gleason, Lamb).

The stratificational, tagmemic and systemic linguistics recognize the need for linguistic analysis to be applied to **whole texts** and as such have

contributed significantly to the field of discourse analysis. Only generative transformational grammar is less concerned with connected discourse than the others despite recognizing the importance of the semantic component. But in the late 70s, there were well-marked trends towards discourse. Generative semantics too started focusing on presuppositions, and other contextual matters, and therefore discourse structure. But by far, the most significant contribution to discourse semantics has been from systemic theory, developed by M.A.K. Halliday, and later Christian Matthiessen, at the University of Sydney. Halliday calls the grammar **functional** as the conceptual framework on which it is based is a **functional** one rather than formal in its interpretation of texts, systems and the elements of linguistic structures. It is functional because it is designed to account for how language is **used**. Every text, written or spoken, unfolds in some context of use - it is the use of language, in fact, that has shaped the system. Language thus is organized as functional to human needs, and so is not arbitrary. As Matthiessen and Halliday both point out, in functional linguistics, semantics is a **natural** grammar, for everything is explained with reference to how language is used. Consequently, the fundamental components of meaning in language are functional ones with language being organized around the 'ideational' or reflective **meaning** and the 'interpersonal' or active meaning. Called metafunctions, they manifest the linguistic system of the two general purposes of language use: to understand the environment (ideational) and to act on the others in it (interpersonal). A third metafunction, the '**textual**' gives relevance to the other two. Each **element** in a language is explained in relation to its function in the total linguistic system.

Thus functional grammar regards all units of a language (clauses, phrases, etc.) as “organic configurations of functions” as “each part is interpreted as functional with respect to the whole” (Halliday, 1985).

Halliday further states that in functional linguistics, the terms used for the levels or ‘*strata*’ of a language are semantics, grammar and phonology, whereby language is coded from meaning to expression. Formal linguistics used the term syntax instead of grammar. However, since syntax in linguistics is part of grammar, the others being vocabulary and morphology, Halliday uses **lexicogrammar**, shortened to grammar. The relation between meaning and wording (how it is expressed) being natural, it is built by children step by step from general to abstract concepts. Only when about ten can a child handle grammatical metaphor.

Of the three metafunctions, textual categories are the hardest to interpret and represent, hence its slow development into semantic and grammatical theories than the ideational one. This is due to the fundamental difference between the two metafunctions:

“The ideational metafunction embodies a theory of reality; it gives us the resources for construing the world around us and inside us So, using the resources of relational transitivity, we can discuss what ‘to’ MEANS, discover that it EXPRESSES directed location; we can note that it is a preposition, that it SERVES as Minorprocess and thus is PART of a prepositional phrase, where it PRECEDES the Minirange; and so on” (Matthiessen, 1992).

It is primarily concerned with interpretation and representation and can be turned back on itself to represent itself. But the textual function is NOT a representational one:

“..... it cannot be turned back on itself to REPRESENT itself. We cannot represent the textual terms. Textual categories thus have to be

INTERPRETED OUTSIDE THE TEXTUAL METAFUNCTION ITSELF by means of the ideational metafunction. Since it is unlike the ideational metafunction, it is also hard to interpret and represent in ideational terms” (Matthiessen, 1992).

Formal and Cognitive Semantics, according to Matthiessen, 1992, interpret meaning as “something that is essentially OUTSIDE language, a model of the world (formal semantics) or a mental model (cognitive semantics)”. They are essentially concerned with ideational meaning, thus these two meanings cannot be used in this study.

Functional semantics however takes meaning as something to be explained in its own right, rather than by reference to a model of the material or mental world: the dominant mode of interpretation is a social-semantic one, and neighbouring disciplines are ethnography and rhetoric (cf Halliday, 1977). All three metafunctions are semantic in nature and textual meaning is interpreted by reference to its contribution to the development of text. Now it is often expressed in terms of an ideational metaphor involving abstract space: **topic, basis, peg, framework, foreground/background, guidepost, stream of narration** (Mathesius 1975), **flow of information** (Chafe 1979), **swell of information** (Halliday 1982b).

A significant contribution to functional grammar is COHESION. Gutwinski (1976:36-63) used Gleason and Lamb’s Stratificational Model as the theoretical framework because “it recognizes and develops several strata , one of which is semology.” He states:

“A language, in the sense of Saussure’s *langue*, is a system of relations. This system underlies all linguistic structures of the language. Language - in itself an abstract system - relates real world experiences (sometimes referred to as meanings) to physical sounds or graphs. The relationship which is attained through the medium of

language between sounds and experiences is a very complex one”
(1976:37).

Lamb (Outline, 20) gives six strata related to three major language systems: phonology, grammar (morphology) and semology. The study threw some light on a few problems of grammatical structure and composition, such as connectors which are better understood when seen functioning together with other cohesive items.

Ruqaiya Hasan's studies on cohesion started in the 60s when she listed some linguistic features of the style of two contemporary English prose writers, and most of these belonged to **structural cohesion**, in Halliday's terms. She called this '**major cohesion**' while her '**minor cohesion**' covered features which Halliday calls **lexical cohesion**. Later, in '*Grammatical Cohesion in Spoken and Written English: Part One*', she distinguished between the internal and external features characterizing a text, stating that only internal features of 'textuality' come under the name of cohesion. She used the term for inter-sentence relations only, placing cohesive features under '**reference**' and '**substitution**', later adding on '**ellipsis**' and '**logical connectives**', thus presenting four "**general grammatical cohesive ties**" and several aspects of linguistic organization relevant to cohesion. In '*Cohesion in English*' (Halliday-Hasan 1976), she defines cohesive relations as "relations between two or more elements in a text that are independent of the structure A semantic relation of this kind may be set up either within a sentence or between sentences; with the consequence that when it crosses a sentence boundary, it has the effect of making the two sentences cohere". In the concluding chapter, she suggests a method for the analysis of cohesion in a text. Later in '*An Introduction to Functional Grammar*' (1985), Halliday places

‘**substitution**’ together with ‘**ellipsis**’ and uses a kind of notation to analyze ‘**reference**’ in a text.

Martin’s ‘English Text’ (1992) is an elaboration of Halliday-Hasan’s ‘Cohesion in English’. He too uses **systemic functional grammar** to ask questions about text structure and complements the grammar by developing additional analyses focusing on text rather than the clause. While ‘*Cohesion*’ is organized as the opposition between grammar and cohesion, ‘*English Text*’ is organized **stratally**, as an opposition between grammar and semantics. And because he deals with text-size rather than clause-size, his semantics is called **discourse semantics**. It is obvious here that he is influenced by Gleason’s stratificational approach to discourse structure, having studied under him.

Thus after considering Halliday’s, Hasan’s and Martin’s numerous contributions to the field, this study will use their theoretical models for the analysis of reference items in texts. These are basically **systemic** in theory even though Martin infuses a stratificational framework to his IDENTIFICATION system used to track participants in discourse.

1.4 Methodology

This is an analytical study of the reference items in a few agricultural texts of two different genre types with a solely **heuristic** or **descriptive** objective - that of discovering and identifying patterns or relationships, if any, of reference types in each genre type. It will also centre on discovering threads of continuity, if any, running throughout the text that will interrelate and make whole messages, thereby

leading to a coherent text. Therefore a descriptive form of research will be undertaken with a **qualitative** analysis of articles. As each article will be analyzed in three different ways - Halliday's, Halliday-Hasan's, Martin's - two types of the **factual genre** will be dealt with: Report and Explanation. The report has a descriptive function while the explanation has an explanatory function. These are generalized across experience and come under texts which are not activity sequences (see 2.6.1. below). The explanations however are in the form of letters to the Editor. Three articles of each type will be used and comparisons made. The articles of each type will be of approximately the same length.

The articles are taken from '**The Planter**', the monthly magazine of the Incorporated Society of Planters, which features original and reproduced articles on tropical agriculture and plantation management, papers relating to the Society's Technical Education Scheme, and other contributions of more general interest to the planting profession. All articles chosen, except one, were written by Malaysians whose mother tongue is NOT English. But it must be noted here that, combined with the long history of British influence in the plantation sector, and the fact that practically all communication at administrative level is in English, it is only natural that these articles are maintained at a high proficiency level of the language.

The study uses three forms of analysis to determine cohesion through reference items:

1. Halliday's Notation System to mark the cohesive relationship in a text provided by reference items (*An Introduction to Functional Grammar*, 1985:290-296).

2. Halliday-Hasan's Coding Scheme for reference items (*Cohesion in English*, 1976:333-355).
3. Martin's Reference Chains to determine participants in the Identification system (*English Text*, 1992:140-157).

Each reference type (**Personal**, **Demonstrative**, **Comparative**) will then be analyzed and its cohesive density in each text determined **manually**.

1.5 Significance

In Australia, text analyses have proved useful in two ways:

- i. as a means of exploring the relationship between text and context - between text and register, genre and ideology; and
- ii. as a foundation for the development of an educational linguistics, used particularly to focus on literacy development (Painter & Martin, 1986; Hasan & Martin, 1989).

The major limitation on participant identification is its lack of attention to the process of **identifying** participants, due to the lack of a procedural orientation to determine the appropriate method of identifying a participant at a particular place in the unfolding of a text, and how an interlocutor may retrieve **presumed** information. Thus it is hoped that this study will provide ideas to others working in this field, and especially in the factual genre which has not been widely studied so far (studies on genre are just picking up). At the same time, it could provide insights into the cohesive threads of continuity running through a text and interrelating various elements to make a coherent text. For a teacher of English who has to go

through texts of varying coherence, I sincerely hope this study will provide a further understanding of what makes texts coherent so that teaching strategies may be planned to improve the quality of writing at school level.

1.6 Definition of Terms

The following terms and their meanings are used in this study:

COHESION: refers to relations of **meaning** which exists within a text and which defines it as a text.

COVARIATE STRUCTURES: those **discourse semantics structures** in which a semantic interdependency is constructed between items which may or may not be grammatized and in which dependent items have the potential to themselves be depended on. They are the principle resources used by discourse semantics for constructing **text**. Covariate structures in which one item presumes another are referred to as **phoric**.

DISCOURSE SEMANTICS: the term used by Martin to ask questions about text structure, focusing on **text** rather than the clause, by organizing them stratally, as an opposition between **grammar** and **semantics** (between clause oriented and text oriented resources for meaning).

FUNCTIONAL LINGUISTICS: the **conceptualization** of language as a resource for meaning. It allows **reasoning grammatically**.

GENRE: a level of **contextual semiosis** responsible for integrating the diversity projected from the **functional** organization of language onto register (the meaning potential that is accessible in a given social context).

IDENTIFICATION SYSTEM: a **textual** system concerned with tracking **participants** in discourse.

LANGUAGE AND CULTURE: “To understand language, we examine the way in which the social structure is **realized** through language: how **values** are transmitted, **roles** defined and **behaviour** patterns made manifest.”
(Halliday:1971a, 69)

METAFUNCTION: the relative independence of **experiential**, **interpersonal** and **textual** systems in networks formulating **paradigmatic** relations at clause rank.

PARTICIPANT IDENTIFICATION: the **strategies** languages use to get **people**, **places** and **things** into a text and to refer to them once there.

PHORICITY: the basic discourse opposition requiring that **information** be recovered from the context. Three main types of information that need to be recovered are:

- i. *Reminding phoricity*, signaling that the identity of the participant being realized is recoverable,
- ii. *Relevance phoricity*, signaling that the identity of one or more participants related to the participant being realized is recoverable, and
- iii. *Redundancy phoricity*, signaling that experiential meanings need to be recovered from the context [this is more related to **lexical** cohesion].

REALIZATION: **System** is described in terms of **paradigmatic** oppositions and **process** in terms of **syntagmatic** oppositions. System and process are related through the concept of **realization**.

REFERENCE CHAINS: the covariate structures deriving from **phoric** options in the **identification** system.

SEMANTICS: the level of analysis of **descriptive** linguistics related to the **meaning** of words, and referring to the totality of meaning in **language**, whether encoded in the form of **vocabulary** or not.

STRATIFICATION MODEL: a model in which the **discourse** semantics both generalizes across grammatical resources, and accounts for relations **between** as well as **within** clause complexes. Martin's model has 3 strata - *discourse semantics and lexicogrammar on the content plane, and phonology/graphology on the expression plane* - and incorporates rank and metafunction.

STRUCTURE: the expression of a set of choices made the in **system** network which is the combination of elements with one another. It is a **unifying** relation - the parts of a sentence or clause **cohere** with each other through structure.

SYSTEM: "a set of **options** together with an entry condition such that if the entry condition is satisfied, one option from the set must be selected" (Halliday: 1969a, 253). It is described in terms of paradigmatic oppositions.

SYSTEMIC LINGUISTICS: a type of **system structure theory** which is especially concerned with system or relationships between linguistic units of various types. It tends to reason about **proportionalities** and investigates the **interrelationships** reflected in them.